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Large Sample Longitudinal Studies:  
Examination of One Diagnostic Category as an Example\*

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### Large Sample Longitudinal Studies:

#### Examination of One Diagnostic Category as an Example\*

John G. Looney, M.D.<sup>1</sup> and E. K. Eric Gunderson, Ph.D.<sup>2</sup>

A

Psychiatry lags behind most other medical specialties in understanding the epidemiology, natural history, and outcome of the disorders within its purview. In 1967 the first edition of Freedman and Kaplan's Comprehensive Textbook of Psychiatry (1) was published, and this reference work included subsections on Epidemiology and Prognosis for each of the major psychiatric syndromes. A review of this text and its second edition (2), however, would suggest that little solid data exist with regard to epidemiology and prognosis for most psychiatric syndromes. Nemiah in discussing Depressive Neurosis, for example, stated the matter well with the following: "As with its epidemiology, it is impossible to make reliable statements about the course and prognosis of depressive neurosis since no systematic or rigorous studies have been carried out in this regard" (3).

The nosology of psychiatry does not remain stable. Our profession must soon become familiar with a third edition of the Diagnostic and Statistical Manual (4) which, in its preliminary version, proposes some major changes including deletion of the neuroses category. It is difficult to carry out meaningful longitudinal studies when diagnostic descriptors change.

Other problems in carrying out longitudinal studies include obtaining samples of adequate size and maintaining standardized psychiatric records

from which data can be easily retrieved and analyzed by computer.

Both providers and consumers of psychiatric care appear to be reluctant to submit very personal information to a machine, which is often seen as malevolent.<sup>3</sup> Lastly, longitudinal studies, involving prognosis, are difficult unless clearly defined criteria for post-treatment outcome can be defined and measured for large samples.

The purpose of this presentation is to describe one example of how such studies might be carried out, limiting ourselves to the problems of prognosis for one diagnostic category. The presentation should demonstrate how such a study can answer an important clinical question.

The diagnosis to be explored is that of Transient Situational Disturbance which is defined as follows in DSM-II:

"This major category is reserved for more or less transient disorders of any severity (including those of psychotic proportions) that occur in individuals without any apparent underlying mental disorders and represent an acute reaction to overwhelming environmental stresses....If the patient has good adaptive capacity his symptoms usually recede as the stress is removed, the diagnosis of another mental disorder is indicated." (5, p. 48)

It is apparent that problems arise in trying to define operationally such descriptors as "more or less transient," "acute reaction," or "overwhelming environmental stresses." However, the most difficult task in such cases is to rule out the presence of a more serious underlying disorder.

Thus, with regard to the usage of this diagnostic category, one very crucial clinical question needs to be answered: Should the diagnosis of

Transient Situational Disturbance be given to patients who at the time of diagnosis have a more serious psychiatric disorder? If the answer to that question is "yes," and the more serious disorder is not also noted, such patients may fail to receive the more extensive treatment needed.

Wynne's review of usage of this diagnostic category suggests that the DSM-II proscription against use of this diagnosis in the presence of another underlying mental disorder is often ignored (2, p. 1612). In addition, there is a large body of literature indicating that great caution should be used in applying this diagnostic category to disorders of adolescents.

A spectrum of ideas has evolved with regard to whether or not situational turmoil in adolescents is a normal aspect of development. At one end of this continuum are such authors as Hall (7), Anna Freud (8), Blos (9,10), and Lindemann (11) who believe that transient states of significant disturbance are a necessary aspect of the developmental process in adolescents and young adults. Anna Freud stated the issue quite directly: "...upholding of a steady equilibrium during the adolescent process is, in itself, abnormal" (8). Toward the other end of this continuum of views are found such authors as Weiner and Del Gaudio (12), Mead (13,14), Masterson (15-18), Rutter (19), Thomas and Chess (20), Offer (21-25), Grinker (26), and others (27,28) who feel that normal development of youth is not by definition characterized by serious storm and stress. Noted in some of these writings is the concern that considering emotional upheaval in young people as transient and situational may obscure the recognition of more serious disorders needing intensive treatment (12,15-18,27). Thomas and Chess noted "...no a priori conclusion can be drawn as to the significance of the presence or absence of adolescent turmoil in any specific youngster. Each case has to be evaluated individually and in

perspective of overall behavior and functioning" (20). Masterson's work (15-18) raises serious questions concerning the possible misuse of situational disturbance diagnoses in adolescents. He found that making an initial correct diagnosis in a disturbed adolescent might be difficult but that little difficulty existed in distinguishing between adolescent turmoil and a more serious illness. A 5-year follow-up of 72 adolescents previously seen for ill-defined, but serious, states of distress revealed that 43 developed personality disorders, 18 schizophrenia, and 11 "character neuroses." More recently, Weiner and Del Gaudio used a cumulative psychiatric case register for Monroe County, New York, to follow a cohort of adolescents over a 10-year period (12). Their data confirmed Masterson's finding that adolescent symptoms persist and tend to become more clearly differentiated over time. They also voiced concern that clinicians may hedge in diagnosing serious adolescent psychopathology with an attendant delay in beginning appropriate treatment.

With regard to course and outcome for patients diagnosed as having Transient Situational Disturbances, a great deal remains to be determined. The natural history and prognosis for these disorders needs to be determined by systematic follow-up studies of large samples of patients. As Wynne (2, p. 1609) has noted in referring to prognosis for these disorders: "Lacking adequate research, psychiatrists still do not know how many or what kinds of acute situational disturbances turn into chronic psychiatric or medical illnesses or contribute to other disabling but undiagnosed problems of living."

In the naval setting, it is a common practice to hospitalize patients with these disorders rather than manage them on an outpatient basis. This practice provides a large number of cases treated in a multi-hospital system

by many clinicians. It provides the use of standardized clinical records and the possibility of systematic follow-up. The purpose of this study is to examine dispositions and post-hospital outcomes for a large sample of young men in the U.S. Navy diagnosed as having Transient Situational Disturbances. Outcomes for this class of disorders will be compared with those for other major diagnostic categories.

#### METHOD

Subjects for the study were 2,078 male, Navy enlisted personnel hospitalized with diagnoses of Transient Situational Disturbance (Acute Situational Maladjustment)<sup>4</sup> during 1966 through 1969.<sup>5</sup> The subjects ranged in age from 17 to 48 with a mean age of 24.6 years. Individual computerized records of psychiatric hospitalizations containing demographic and clinical information were obtained from the Naval Medical Data Services Center, Bethesda, Maryland. Service history information was obtained from Bureau of Naval Personnel files. Follow-up was conducted on all patients returned to military duty after hospitalization in order to determine significant recurrence of symptoms (rehospitalization) or impaired work effectiveness.

Post-hospital work effectiveness was defined as follows: Completion of 6 months on active duty after hospitalization and, if separated from service after 6 months, completion of current enlistment with a favorable discharge and a positive recommendation for reenlistment. Noneffectiveness was defined as rehospitalization for a psychiatric condition, receiving an unfavorable discharge (such as Unsuitability or Bad Conduct), or receiving a negative recommendation with respect to reenlistment because of substandard performance. Rehospitalization was treated both as a separate criterion and as part of the

general effectiveness criterion. The average length of follow-up was 3 to 4 years.

### RESULTS

Disposition. Hospital dispositions indicated that clinicians regarded prognosis as favorable for this group of patients; 90 percent of the cases were returned to military duty as opposed to being discharged from the service. This figure compares with other major diagnostic categories as follows: neuroses - 66 percent; personality disorders - 41 percent,, and psychoses - 27 percent (29).

Post-Hospital Outcome. Of the 1,874 patients returned to duty from the hospital, 27 percent were rehospitalized for psychiatric reasons within the 3 to 4 years of the follow-up period, including 9 percent for neurosis or psychosis; an additional 10 percent were prematurely discharged from service for administrative reasons (primarily Unsuitability attributable to personality disorder), and 4 percent were not recommended for reenlistment because of substandard performance. The remaining 59 percent of those returned to duty were classified as effective, i.e., they had no further psychiatric hospitalizations and completed their military enlistments satisfactorily.

In order to investigate reasons for rehospitalization, the subsequent clinical histories of a random sample of 100 rehospitalized cases (approximately 20 percent of the total) were examined to determine the diagnoses given during the second hospitalization. Of those readmitted, only 20 percent again received diagnoses of Transient Situational Disturbance. The largest group of readmissions were diagnosed personality disorder (47 percent), followed by

neuroses, including psychophysiological disorders (25 percent), and psychoses (7 percent).

#### DISCUSSION AND CONCLUSIONS

In this follow-up study of a large sample of young men, Transient Situational Disturbance was a less severe and disabling condition in terms of chronicity, length of hospitalization, and ability to return to previous job than any other psychiatric disorder. The analysis also revealed more favorable outcomes in terms of work effectiveness and avoidance of rehospitalization than any major psychiatric group except psychophysiological disorders (30). These results generally supported the validity of this diagnostic category and were consistent with a favorable prognosis when the precipitating stresses were removed or reduced.

The post-hospital effectiveness rate for Transient Situational Disturbance, while high (59 percent) compared with other major diagnostic categories, was not as high as might be expected from the definition of the disorder in DSM-II. The primary difficulty appeared to be the presence of undiagnosed personality disorders in a substantial proportion of cases diagnosed Transient Situational Disturbance at first hospitalization. Almost one-half of those subsequently rehospitalized for psychiatric reasons were diagnosed personality disorders. Also, 14 percent of those returned to military duty after hospitalization for Transient Situational Disturbance subsequently were discharged prematurely for administrative reasons or were not recommended for reenlistment because of substandard performance. These types of behavior problems are usually associated with personality disorders. These findings are partic-

ularly noteworthy because, according to the diagnostic criteria of the DSM-II, personality disorders "are life-long patterns, often recognizable by the time of adolescence or earlier" (5, p. 41). By definition, therefore, a personality disorder existed at the time of first hospitalization for many of the patients of this study but was not diagnosed as such.

It was the authors' clinical impression that this diagnosis was used in this sample under the following four circumstances:

1. When the actual diagnosis was unclear.
2. When a more serious condition actually existed but the clinician wanted to avoid "stigmatizing" the patient.
3. When a transient situational disturbance existed without any concurrent psychiatric syndrome (as defined by DSM-II).
4. When a transient situational disturbance existed concurrently with a more serious disorder.

The authors feel that this diagnosis should not be used under the first two circumstances. The use of the diagnosis under the last two circumstances would appear to be logically permissible, and such a practice would be supported by the previously noted results.

At present, although the recording of multiple diagnoses is generally encouraged in DSM-II to provide maximum information about the patient's condition, this practice is precluded by the current definition of Transient Situational Disturbance. There should be a way to give recognition to concurrent mental disorders and to differentiate between exacerbation of an underlying disorder and existence of situational disturbance as a separate entity.

In the future revision of this diagnostic category it should be possible to

provide operational criteria that define a change in psychological functioning which is not an exacerbation of but may be concurrent with another mental disorder, is a reaction to identifiable life stress, is of such a nature as to indicate that the individual's adaptive mechanisms are not working properly, and which remits when the stress conditions cease. However, the present study suggests that clearer criteria are needed to define operationally these conditions and to signify when underlying personality disorders or other concurrent psychiatric syndromes exist which may require more extensive treatment.

The present study is an example of a type of longitudinal research which must become more common if we wish to understand more fully the epidemiology, natural history, and prognosis of the various psychiatric disorders for which we provide treatment. As noted earlier, clearer and more stable diagnostic criteria, large samples, standardized record keeping techniques among participating treatment centers, ever more precisely defined outcome criteria, and multivariate analyses by computer are necessary requirements of this type of research.

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FOOTNOTES

<sup>3</sup>In assisting recently with the development of a model code for Confidentiality of Childrens Records, one of the authors (JGL) was impressed with the great pressure that exists to destroy computer-stored data after brief intervals. How then can researchers ever do systematic studies on the natural history of psychiatric disorders of children and adolescents if the data are not stored for longer periods of time?

<sup>4</sup>*Diagnoses of Acute Situational Maladjustment* were established with reference to the Department of Defense Disease and Injury Codes (DDDIC), July 1963. This system was equivalent to the Diagnostic and Statistical Manual, Mental Disorders, First Edition. The corresponding diagnosis in the current Eighth Revision International Classification of Diseases, Adapted for Use in the United States, which is equivalent to the Diagnostic and Statistical Manual of Mental Disorders, Second Edition, is the general category Transient Situational Disturbance and the specific category Adult Situational Reaction.

<sup>5</sup>It should be noted that during this period, 1966 through 1969, the lottery draft was the primary method of procurement of military personnel. The present sample, therefore, represents a reasonable approximation of a randomly selected cross-section of young American men aged 18 to 26.

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a need to identify and indicate more serious underlying conditions, principally personality disorders, which were frequently present.

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